0047628

Meeting Minutes Transmittal

CENTRAL WASTE COMPLEX
Project Managers Meeting
2224 Stevens Center, Room 2100
Richland, Washington

May 1, 1997
2:30 p.m. to 4:00 p.m.

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above-dated Project Managers Meeting.

Anthony C. McKarns, Environmental Assurance, Permits, and Policy Division, DOE-RL — Date: 6/10/97

Ted A. Wooley, Unit Manager, for Laura Cusack, Project Manager, Washington State Department of Ecology — Date: 6/4/97

Anthony G. Miskho, Contractor Representative, FDH — Date: 6/4/97

Daniel G. Saueressig, Permitting Representative, RFSH — Date: 6/2/97

Central Waste Complex, RFSH Concurrence

Kent M. McDonald, Contractor Representative, RFSH — Date: 6/4/97

Purpose: Discuss permitting process.

Meeting Minutes are attached. The minutes are comprised of the following:
Attachment 1 - Agenda
Attachment 2 - Summary of Discussion and Commitments/Agreements
Attachment 3 - Attendance List
Attachment 4 - Action Items
Attachment 5 - Response to Ecology's NOD Comment Table
Attachment 6 - Interim Safety Basis

Attachment 1

CENTRAL WASTE COMPLEX
Project Managers Meeting
2440 Stevens Center, Room 2100
Richland, Washington

May 1, 1997
2:30 p.m. to 4:00 p.m.

AGENDA

1. **PREVIOUS MEETING MINUTES**

2. **PROGRAM STATUS**

   - Phase V - Project W-112 Status (R. Ames - RFSH)

3. **PERMIT APPLICATION STATUS**

   - Part B NOD Workshop Schedule (D. Saueressig- RFSH)

4. **BUDGET TOPICS**

   - FY97 Budget Status (D. Saueressig - RFSH)

5. **GENERAL TOPICS**

   - Past Action Items

3-21-96:3	Check to see if there is some type of quantifiable criteria by which CWC personnel determine whether a spill is major or minor. ACTION: Mr. Miskho **OPEN**
5-31-96:2	RFSH will provide Ecology (T. Wooley) the comparison between the unit specific BEP versus the Hanford Contingency Plan(s) at the next PMM. ACTION: Mr. Miskho **OPEN**
11-12-96:1	Mr. Wooley, (Ecology) will provide Mr. McKarns (DOE-RL), Mr. Saueressig (RFSH) and Mr. Miskho (FDH) an outline of the detail he is requesting to be included in the Building Emergency Plan. ACTION: Mr. Wooley **OPEN**

11-12-96:2 Mr. Miskho will determine a course of action in an effort to provide a Building Emergency Plan to meet Ecology's approval.
ACTION: Mr. Miskho

OPEN

12-11-96:1 Mr. Barnes (RFSH) will establish a time for Mr. Wooley (Ecology) to observe an emergency exercise at CWC.
ACTION: Mr. Barnes

OPEN

01-21-97:1 Mr. McDonald (RFSH) will provide Mr. Wooley (Ecology) a copy of the Interim Safety Basis (ISB) following approval of the document by DOE-RL.
ACTION: Mr. McDonald

CLOSED

03-26-97:1 Mr. McDonald (RFSH) will provide Mr. Wooley (Ecology) the guidance information regarding process knowledge that is being applied to the 1200 drums being received at CWC from 224-T TRUSAF.
ACTION: Mr. K. McDonald

OPEN

- New Action Items

6. **SCHEDULE NEXT MEETING**

- Tentative Date

Mr. Saueressig distributed a draft Part B Permit Application workshop schedule that was handed out at the November 12, 1996 PMM. Mr. Wooley noted that his NOD comment table basically addressed the entire Part B Permit Application, with the exception of the WAP and the Building Emergency Plan (BEP). A brief discussion was held regarding the order of the chapters to be revised. Mr. Saueressig will draft a new workshop schedule to reflect the changes, and send a copy to all the parties electronically and provide a copy at the June 1997 PMM.

Mr. T. Miskho (FDH) stated that Chapter 8.0 of the Part B Permit Application may undergo some changes, and requested the possibility of noting flexibility in the order of chapters to be revised.

4. BUDGET TOPICS

- FY97 Budget Status

Mr. Saueressig reported that the Part B Permit Application workshop is funded.

5. GENERAL TOPICS

- Past Action Items

3-21-96:2, Check to see if there is some type of quantifiable criteria by which CWC personnel determine whether a spill is major or minor.

This action item was left open.

5-31-96:2, RFSH will provide Ecology (T. Wooley) the comparison between the unit specific BEP versus the Hanford Contingency Plan(s) at the next PMM.

This action item was left open.

11-12-96:1, Mr. Wooley, (Ecology) will provide Mr. McKarns (DOE-RL), Mr. Saueressig (RFSH) and Mr. Miskho (FDH) an outline of the detail he is requesting to be included in the Building Emergency Plan.

This action item is open.

11-12-96:2, Mr. Miskho will determine a course of action in an effort to provide a Building Emergency Plan to meet Ecology's approval.

This action item was left open.

12-11-96:1, Mr. Barnes (RFSH) will establish a time for Mr. Wooley (Ecology) to observe an emergency exercise at CWC.

This action item is open.

01-21-97:1, Mr. McDonald (RFSH) will provide Mr. Wooley (Ecology) a copy of the Interim Safety Basis (ISB) following approval of the document by DOE-RL.

A copy was provided to T. Wooley, closing this action item.

03-26-97:1, Mr. McDonald (RFSH) will provide Mr. Wooley (Ecology) the guidance information regarding process knowledge that is being applied to the ~1200 drums being received at CWC from 224-T TRUSAF.

Mr. McDonald provided the information during the 5-1-97 PMM (Attachment 6), closing this action item.

Mr. C. Haas (RFSH) provided Mr. Wooley with an explanation of the checklist used to evaluate containers being transferred from the 224-T TRUSAF to the CWC, describing the entire review process of one container. Mr. Wooley inquired about how the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria (WAC) relates to the review process the ~1200 containers from the 224-T TRUSAF are undergoing. Mr. McDonald explained that the containers were initially x-rayed when they were brought into the 224-T TRUSAF to verify whether they met the WIPP WAC. If a discrepancy is reflected in the paperwork (such as x-ray indicating a battery contained in the container that is not documented), the waste is designated, the paperwork is corrected, and the container is labeled accordingly and placed into compliant storage at the CWC. Mr. Wooley asked about segregation of containers for further examination. Mr. Haas explained that the decision to segregate a container would depend on the resolution required. If the container contains liquid, or the x-ray does not clearly identify the item, then the container is segregated and the x-ray tape is reviewed or the container would be shipped to T-Plant to be opened.

Mr. Haas pointed out that the goal is to ensure the containers are compliant to be stored in CWC, rather than meeting the WIPP WAC requirements. Mr. Wooley expressed concern that compliance with the WIPP WAC is more extensive than what is reflected in the current CWC waste acceptance criteria, and whether a cross-check is in place between the WIPP WAC and the CWC waste acceptance criteria. Mr. McDonald explained that the waste has already been received by a Solid Waste TSD Unit per the waste acceptance criteria that was in place at the time. Mr. Wooley stated that he will review the sample paperwork and checklist provided by Mr. Haas, and contact Mr. McDonald if he has any questions.

Mr. Miskho addressed the action items associated with the BEP, noting that he has been assigned a sitewide action to document the concerns for the different units' BEPs. Mr. Miskho requested confirmation from Ecology that the two main BEP issues associated with CWC are: 1) Implementation of the Contingency Plan; 2) Identification of the difference between major and minor spills.

Mr. Wooley agreed that the above-mentioned issues are to be considered main issues; however, he could not confirm at this time that there were no other main issues.

- New Action Items

  There were no new action items.

6. **SCHEDULE NEXT MEETING**

- Tentative Date

  The next PMM was scheduled for June 4, 1997, in Richland, Washington. A NOD workshop will follow the PMM.

- Proposed Topics

  Proposed topics should be submitted to Mr. Saueressig.

Attachment 3

CENTRAL WASTE COMPLEX
Project Managers Meeting
2440 Stevens Center, Room 2100
Richland, Washington

May 1, 1997
2:30 p.m. to 4:00 p.m.

Attendance List

Name	Organization	Phone #
Ted Wooley	Ecology	736-3012
Mike Ciminera	GSSC	946-3681
Craig Lansing	DYN	373-4308
Kathy Knox	Knox Court Reporting	946-5535
Dan Saueressig	RFSH	376-9739
Kent McDonald	RFSH	373-4981
Bernadette Kenworthy	RL	372-3459
Larry Olsen	RFSH	376-8737
Tony Miskho	FDH	376-7313
Chris Haas	RFSH	372-0510
Tony McKarns	RL	376-8981
Paul Macbeth	GSSC	372-2289

Attachment 4
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Action Items

Action Item #	Description
3-21-96:3	Check to see if there is some type of quantifiable criteria by which CWC personnel determine whether a spill is major or minor. ACTION: Mr. Miskho (FDH) **OPEN**
5-31-96:2	RFSH will provide Ecology (T. Wooley) the comparison between the unit specific BEP versus the Hanford Contingency Plan(s) at the next PMM. ACTION: Mr. Miskho (FDH) **OPEN**
11-12-96:1	Mr. Wooley (Ecology) will provide Mr. McKarns (DOE-RL), Mr. Saueressig (RFSH) and Mr. Miskho (FDH) an outline of the detail he is requesting to be included in the Building Emergency Plan. ACTION: Mr. Wooley (Ecology) **OPEN**
11-12-96:2	Mr. Miskho (FDH) will determine a course of action in an effort to provide a Building Emergency Plan to meet Ecology's approval. ACTION: Mr. Miskho (FDH) **OPEN**
12-11-96:1	Mr. Barnes (RFSH) will establish a time for Mr. Wooley (Ecology) to observe an emergency exercise at CWC. ACTION: Mr. Barnes **OPEN**
03-26-96:1	Mr. McDonald (RFSH) will provide Mr. Wooley (Ecology) the guidance information regarding process knowledge that is being applied to the 1200 drums being received at CWC from 224-T TRUSAF. **CLOSED**

Attachment 5

CENTRAL WASTE COMPLEX
Project Managers Meeting
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Richland, Washington

May 1, 1997
2:30 p.m. to 4:00 p.m.

RESPONSE TO ECOLOGY'S NOD COMMENTS

March 21, 1997

Hanford Facility Dangerous Waste Permit Application,
Central Waste Complex DOE/RL-91-17 WD2
Notice of Deficiency Table No. 1

No.	Comment/Requirement

1. Page 1-1, line 17. Comment: It is not clear why the Part A, form 3s for the Central Waste Complex (CWC) and Waste Receiving and Processing (WRAP) were combined.

   Requirement: Clarify this part of the discussion.

   DOE-RL/FDH Response: They are not combined, and were split into two separate Form 3's on January 25, 1995 (Revision 3). Originally the Hanford Central Waste Complex (Hanford CWC) Part B included the Radioactive Mixed Waste Storage Facility (now known as CWC), and the Waste Receiving and Processing Modules 1, 2A, and 2B. The TPA identified two Part B's for this one unit, and two distinct milestones for submittal of the Radioactive Mixed Waste Storage Facility Part B (Milestone M-20-05) and the Waste Receiving and Processing Module 1 [Module 2A and 2B to be included as revisions to the WRAP Part B (Milestone M-20-12)]. A decision was made to separate the Part A into two separate Part A's to match the Part B's.

2. Page 1-1, line 20. Comment: Ecology's review of the most recent CWC Part A, form 3, REV 3 against REV 4 did not identify an additional 23 waste codes. Please identify which codes were added. If REV 4, dated 10/01/96, is not the most current CWC Part A, the U.S. Department of Energy (USDOE) will need to resubmit the currently active Part A and, if there are significant changes, re-certification may have to take place.

   Requirement: Explain how the addition of 23 waste codes was justified and to which Part A revision.

   DOE-RL/FDH Response: The 23 additional dangerous waste numbers were added to Revision 3 of the Part A, Form 3. Comparison of Revision 2 against Revision 3 will identify waste numbers that were added. No comments were received from Ecology on Revision 3, therefore Revision 3 was approved. As the Washington Administrative Code (WAC) 173-303 is revised, dangerous waste numbers are added and/or deleted from the regulations. Therefore, when the Part A was revised, these dangerous waste numbers were either added or deleted to reflect the current revision of WAC 173-303. Revision 4 (included in this draft permit application) is the most current version and was submitted when the Project Hanford Management Contract was awarded to Fluor Daniel Hanford, Inc.

3. Page 2-1, Section 2.0. Comment: Ecology's Dangerous Waste Permit Application Requirements document, sections B-1a(2) and (3) have not been addressed. Items, such as a detailed flow diagram description of

the dangerous waste management operations and any Dangerous Waste Regulations regarding "treatment by generator," are missing from this section.

Requirement: Review the permit application requirements, as referenced above, and revise the Part B accordingly.

DOE-RL/FDH Response: Per the Ecology Part B checklist [B-1a(2)], this information is referenced and discussed in Chapters 3.0 and 4.0. This draft permit application was developed before the Waste Analysis Plan (WAP) guidance was finalized. The WAP will be revised before the next submittal to incorporate the guidance. Treatment by generator activities are outside the scope of this permit application.

4. Page 2-1, line 51. Comment: The sentence beginning with, "The floor accommodates a 908-Kg forklift ... and an approximate 1000, container equivalent load, depending on the waste management criteria," is confusing. What is a 1000 container equivalent load? Also, what does discussion on floor load capacity have to do with waste management criteria?

Requirement: Please revise\clarify this sentence with the above questions being the basis for revision.

DOE-RL/FDH Response: A 1,000 container equivalent load is equivalent to 1,000 208-liter containers full of water. For example, using the weight of water, which is approximately 1 kilogram per liter, therefore, a 208-liter container could weigh as much as 208 kilograms, when multiplied by 1,000, you arrive at a 1,000 container equivalent load of 208,000 kilograms, which these storage buildings are rated for. With regards to the 908 kilogram forklift, this discussion is for informational purposes only. The only intent behind the statement commented on is to demonstrate that the floor is capable of accommodating a given waste load in conjunction with waste handling equipment.

5. Page 2-2, line 22. Comment: What type and magnitude of module modification does it take to facilitate modification of the Part A. As the text reads now, there could be a lot of changes to the modules with little or no revision to the CWC Part A.

Requirement: Provide further information on the process.

DOE-RL/FDH Response: Correct! The CWC is constructed and continues to accommodate construction for the addition of storage locations as waste management needs dictate. The Part A description allows for the flexibility to modify existing storage locations without a revision. The process design capacity identified in Section III.B.1. of the Part A is large enough to accommodate any new storage locations without an increase, however, the Part A would be revised whenever new storage locations outside the TSD unit boundary are identified as being needed.

6. Page 2-3, line 9. Comment: Please see comment/requirement #4 above.

DOE-RL/FDH Response: Refer to response to comment 4.

7. Page 3-1, Section 3.1. Comment: Although the reference to the Dangerous Waste Application Requirements is correct, the section does not fulfill the prescribed elements laid out in C-1 and C-1(a). C-1(a) stipulates the following: "Include the identity and concentration of all constituents and physical properties . . . "

Requirement: Clarify how the text presented in section 3.1 meets the elements of C-1 and C-1(a).

DOE-RL/FDH Response: This draft permit application was developed before the WAP guidance was finalized. The WAP will be revised before the next submittal to incorporate the guidance.

8. Page 3-1, line 14. Comment: This sentence identifies mixed waste as being the only type of waste that can be stored in CWC. Does this mean there is absolutely no "non-mixed" dangerous waste currently stored at CWC?

Requirement: Provide information to answer the above question.

DOE-RL/FDH Response: The CWC can accept any type of waste, however, for the purpose of this Part B, mixed waste and only the dangerous waste portion of that mixed waste (excluding radionuclides) is subject to Ecology regulation. The CWC also can store low-level waste and transuranic waste and this waste is not subject to Ecology regulation. The CWC mission supports these waste management activities. This draft permit application was developed before the WAP guidance was finalized. The WAP will be revised before the next submittal to incorporate the guidance.

9. Pages 4-1, line 48. Comment: This paragraph does not mention "state only" waste codes WSC2 and W001. Is this list meant to be comprehensive or not?

Requirement: Please explain why the two waste codes mentioned above are not listed under section 4.1.1.1.

DOE-RL/FDH Response: Accept, dangerous waste numbers WSC2 and W001 will be added.

10. Page 4-1, line 46. Comment: The text indicates that marking and labeling requirements are discussed in chapter 3.0, Where?

Requirement: Please identify where these instructions are specifically found in chapter 3.

DOE-RL/FDH Response: Accept. Text will be added.

11. Page 4-2, Section 4.1.1.2. Comment: Requirement D-1c, although referenced, is not met in this section. Container Labeling is not discussed anywhere in this section.

Requirement: Please clarify where labeling is described in this section, or where it can be found in the Part B. If it is not currently in the Part B, please add it, pursuant to requirement D-1c.

DOE-RL/FDH Response: Accept. Text will be added.

12. Page 4-2, line 41. Comment: This section is incomplete. The secondary containment calculations (as noted in Appendix 4C) are not yet available. This requirement must be met during interim status, just as it would be required in final status.

Requirement: Provide these calculations as soon as possible. The Part B cannot be approved without these calculations completed and inserted into the document.

DOE-RL/FDH Response: The secondary containment calculations were included in Revision 0. These calculations are currently being converted to metric per a DOE-RL direction, and will be provided when completed.

13. Page 4-3, line 27. Comment: How can sections 4.1.2.2 and 4.1.2.3 be completely accurate if the secondary containment calculations, as noted in comment #12, are not complete?

Requirement: Explain how discussions provided in sections 4.1.2.2 and 4.1.2.3 are valid without the appropriate calculations completed.

DOE-RL/FDH Response: Refer to response to comment 12. Once the secondary containment calculations are converted to metric, the sections referencing these calculations will be verified.

14. Page 4-4, line 10. Comment: How visually accessible are the trench drains? Can an accurate assessment of the volume contained by the trenches be made?

Requirement: Describe in more detail the visual accessibility of the storage pad trenches.

DOE-RL/FDH Response: The trenches are covered with a grate, the grate has holes, and this grate provides for ocular verification. This verification allows for an estimate of the trench volume to be determined.

15. Page 4-4, line 21. Comment: In what building is the logbook kept and what type of release would

facilitate a change to the logbook.

Requirement: Please provide answers for the above questions.

DOE-RL/FDH Response: The logbook usually is kept at MO-288 (on the waste receiving and staging area). Any release is recorded in the logbook regardless of quantity.

16. Page 4-5, line 26. Comment: Who is responsible for developing a sampling and analysis plan for the wipe sampling events?

Requirement: Revise document to include more detail on the development and implementation of the sampling plan.

DOE-RL/FDH Response: There is no sampling plan for the cleanup of spills. Procedures are in place to clean up spills and to verify the adequacy of the cleanup. Sampling plans are prepared for closure activities, but are not required by WAC 173-303 for spill cleanup.

17. Page 4.-6, line 32. Comment: This sentence is somewhat confusing. The Part A describes solidification of free liquids as a treatment process performed at CWC, yet free liquids are only looked for under specific instructions. Does this mean there is a potential for free liquids to be stored at CWC? If so, how does the Part A reflect this. Of the drums that are stored long term, what percentage of the total drum volume can contain free liquid?

DOE-RL/FDH Response: The CWC meets all regulatory requirements (WAC 173-303) to store free liquids. The Part B will be written to reflect this operating flexibility. Current waste acceptance criteria limit liquids from 1 to 3 nineteen liter leak resistant containers overpacked in a container that contains twice the absorbent amount of material needed to absorb the liquid.

18. Page 4-7, line 16. Comment: This paragraph is insufficient in terms of providing the elements identified in Section D-1f(1). The following direction is given: "Provide sketches, drawings, or data that containers of reactive waste exhibiting a characteristic specified in WAC 173-303-090(7)(vi), (vii) or (viii) are stored in a manner equivalent . . . ," but is not indicated in the text currently in the permit application.

Requirement: Explain why all of the information identified in D-1f(1) is not provided in section 4.3.1. If this information can be found in various portions of the document, please identify those sections. If there are related plan views or as-built sketches, those should be referenced within this section so the reader does not have to search for them. If there are no sketches that apply to reactive waste storage, this requirement will considered as unfulfilled.

DOE-RL/FDH Response: Per the Ecology Part B checklist, this section will be evaluated against what is required by applicable WAC 173-303 regulations.

19. Page 4-7, line 23. Comment: This paragraph is insufficient in terms of providing the elements identified in Section D-1f(2). The following direction is given: "Provide sketches, drawings, or data demonstrating that container storage of ignitable waste and reactive waste." Requirements listed in section D-1f(2) go beyond what the permit language currently includes.

    Requirement: Explain why all of the information identified in D-1f(2) is not provided in section 4.3.2. If this information can be found in various portions of the document, please identify those sections. If there are related plan views or as-built sketches, those should be referenced within this section so the reader does not have to search for them. If there are no sketches that apply to reactive waste storage, this requirement will be considered as unfulfilled.

    DOE-RL/FDH Response: Per the Ecology Part B checklist, this section will be evaluated against what is required by applicable WAC 173-303 regulations.

20. Page 4-7, line 32. Comment: This paragraph is insufficient in terms of providing the elements identified in Section D-1f(2). The following direction is given: "Through sketches, drawings, and/or data demonstrate that a container holding a dangerous that is compatible with any waste . . . ." Requirements listed in section D-1f(3) go beyond what the permit application language currently includes.

    Requirement: Explain why all of the information identified in D-1f(3) is not provided in section 4.3.3. If this information can be found in various portions of the document, please identify those sections. If there are related plan views or as-built sketches, those should be referenced within this section so the reader does not have to search for them. If there are no sketches that apply to reactive waste storage, this requirement will consider as unfulfilled.

    DOE-RL/FDH Response: Per the Ecology Part B checklist, this section will be evaluated against what is required by applicable WAC 173-303 regulations.

21. Page 6-2, line 8. Comment: Section F-2 in the requirements is actually entitled, "Inspection Plan," not "Inspection Requirement." What process does CWC have that would be considered equivalent?

    Requirement: Explain how WAC-173-303-806 (4)(a)(v), -303-320, -303-340, 40CFR 270.14, and 264.15 are being met within this section, or even within the permit application.

    DOE-RL/FDH Response: This information is contained in Sections 6.2.1, 6.2.1.1, 6.2.1.2, 6.2.2, 6.2.3 and 6.2.3.1 and 6.2.3.2.

22. Page 6-2, line 24. Comment: There is no apparent attempt in this section to meet requirement F-2a(1).

Requirement: Please review the elements identified in F-2a(1) and describe how these are met with the permit application.

DOE-RL/FDH Response: The Ecology Part B checklist is guidance and not everything contained is required by the regulations.

23. Page 6-2, line 24. Comment: It would be helpful to get a copy of a blank inspection checklist, in order to better understand what is actually looked for on a standard inspection

Requirement: Please provide a copy.

DOE-RL/FDH Response: Checklist is available at the TSD unit and one will be provided. However, the checklist will not be included in the Part B as inclusion is not required by WAC 173-303.

24. Page 6-3, Line 35. Comment: F-2c(1)(c) requires specifying actual timelines for taking corrective action. Line 35 of Section 6.2.2 of the permit application defers discussion of the timeline to the BEP (appendix 7a). The BEP does not indicate a timeline for corrective action.

Requirement: Revise either section 6.2.2 and\or the BEP pursuant to F-2c with regard to all spill types. Please emphasize timeline for corrective actions and positions responsible for taking corrective action or ensuring other staff remedy the problems. If this information is already available, please identify where it exists. Further discussion on adequacy of the information with regard to regulatory requirements will most likely be necessary.

DOE-RL/FDH Response: The Ecology Part B checklist is guidance and not everything contained is required by the regulations.

25. Page 6-4, line 15. Comment: This section refers the reader to section 6.2.2, which refers the reader to the BEP for corrective actions other than spills to secondary containment. As discussed in comment #24, the BEP does not adequately address corrective action schedules.

Requirement: Please see requirement #24 with focus on F-2d(1)(b)(i) and (ii).

DOE-RL/FDH Response: Refer to response to comment 24.

26. Page 7-1. Comment: Currently, Ecology is having internal discussions on whether the combination of unit specific BEP and Attachment 4 of the Hanford Facility Permit (DOE/RL 91-28) plus other documents, such as,

the plant operating procedures and WHC-CM-4-43 actually make up an effective "overall contingency plan." The main questions Ecology has at this time is: (1) When do USDOE and contractors actually consider the BEP implemented, and (2) what does that mean in terms of reporting requirements? Additional NODs will results from that discussion.

Requirement: Please prepare for future discussions on how the combination of all of the documents actually fulfill requirements pursuant to WAC 173-303-350.

DOE-RL/FDH Response: No response required. Answers to questions will be developed during future discussion with Ecology.

27. Page 10-1. Comment: There is no mention of intent to meet 40 CFR 264.75(h) and (I) requirements. A quick review of DOE/RL-97-16, the Hanford Site Annual Dangerous Waste Report, indicates some deficiencies. Generator identification is lacking in most cases and there is no mapping of waste location as required in 40 CFR.

Requirement: Review the federal requirements. Revision of -97-16 or Section 10 of the permit application will be necessary.

DOE-RL/FDH Response: This text has been agreed to by Ecology and is reflected in the *Hanford Dangerous Waste Permit Application, General Information Portion* (DOE/RL-91-28), Chapter 10.

28. Page 11-2 line 1. Comment: Reference to the background document will require updating. A cross-reference to the appropriate contractor will be necessary, unless some portions of Westinghouse Hanford still exist. If WHC 1991a is the relevant document then Ecology concurrence should have occurred and been documented, or use of it for permitting activities may not be appropriate. Also, sampling requirements imposed by WAC-173-340, as implemented by WAC-173-303, must be considered in corrective action.

Requirement: Revise the permit application to correctly reference the site background document and verify Ecology approval of the document. Also, add the reference to WAC-173-340.

DOE-RL/FDH Response: Refer to the *General Information Portion* (DOE/RL-91-28), Chapter 11.0. The correct sampling methods are identified in SW-846. It is anticipated that the CWC will be clean closed and, therefore, corrective action will not be required.

29. Page 11-2 line 11. Comment: There is no mention of providing Ecology with a sampling and analysis\decontamination plan as part of the closure requirements. Although this may be implied, it makes sense to actually identify this as a major deliverable prior to implementing closure activities.

Requirement: Revise section 11.1.2 to include an Ecology approved the SAP\decon plan as a preclosure deliverable. The format will be based on the most current Ecology guidance (current to the year that CWC is actually closed).

DOE-RL/FDH Response: The CWC is not anticipated to be closed for a number of decades. When the CWC does close, the current regulatory requirements for development of a closure plan will be submitted.

30. Page 13-1. Comment: WAC-173-340 will require referencing. Also, as stated in the requirements list, all permits applied for or received from any regulatory agencies.

Requirement: Please revise the permit application to meet this requirement under Section J.

DOE-RL/FDH Response: This text has been agreed to by Ecology and is reflected in the *General Information Portion* (DOE/RL-91-28), Chapter 13.0.

31. Page APP 3A-i. Comment: A detailed set of NODs on the Waste Analysis Plan (WAP) for CWC will be submitted by Ecology in the coming weeks. There are still some outstanding issues on the WAP guidance that need resolution.

Requirement: An agreement of when Ecology will provide NODs on the WAP will be discussed as part of the work shop schedule at the next project managers meeting.

DOE-RL/FDH Response: A CWC WAP addressing the guidance developed during the workshops with DOE-RL, FDH/RFSH, and Ecology will be developed.

32. Page APP 4C-i. Comment: When will secondary containment calculations be available? The part B cannot be approved prior to having the calculations.

Requirement: Please give a date.

DOE-RL/FDH Response: Refer to response to comment 12. Secondary containment calculations will be provided by July 31, 1997.

33. Page APP 4D-i. Comment: There is no information on how durable the sealant is in terms of reaction to chemical spills and physical damage from drum movement. MSDS information, although necessary, does not whether the sealant is appropriate for the application it is being used for.

Requirement: Revise the permit application, adding the requested information.

DOE-RL/FDH Response: Although the regulations do not require the installation of a protective coating over the concrete floors, this added protection for the concrete exceeds what is required by the regulations. The MSDS's provide general physical and chemical descriptions of the coatings.

34. Page APP 7A-i. Comment: Ecology is not prepared to give a complete set of NODs on the BEP because of current internal discussions.

Requirement: A date will be set for submittal of BEP NODs. NODs were submitted in January 1996 which, at a minimum, will require completed resolution. Additional NODs will be dependent on the outcome of Ecology discussions.

DOE-RL/FDH Response: No response required. Answers to questions will be developed during future discussions with Ecology.

35. Page APP 8A-i. Comment: There is no reference to Section H the Dangerous Waste Application Requirements document, Why?

Requirement: To be consistent and to have the correct focus on training requirements, please reference Section H.

DOE-RL/FDH Response: Section H is complied with by directing the reader in Chapter 8 to Appendix 8A. Appendix 8A contains the Solid Waste Disposal training plan. This training plan is included in the 616 Nonradioactive Dangerous Waste Storage Facility (616 NRDWSF) Permit, which has been accepted by Ecology, and included in the HF RCRA Permit, Part III, Chapter 1.

36. Page 12, 1st para. under bullets. Comment: What happens with personnel who cannot pass the training requirements. Are they restricted from doing related work?

Requirement: Please clarify how training deficiencies are handled.

DOE-RL/FDH Response: Personnel are retested and/or provided with additional instruction. If the personnel cannot pass the required tests necessary to perform his/her job, this individual is (1) not allowed to perform this particular job or (2) is allowed to perform the job, but under close supervision (this depends on the hazards associated with the job).

37. Page 13, 1st sentence. Comment: Define exempt personnel.

Requirement: For clarification purposes, please define which positions are considered exempt.

DOE-RL/FDH Response: Refer to the Fair Labor Standard Act of 1964. This term does not infer that an employee does not have to meet specific requirements, but refers to how the human resources organization manages payroll.

38. Page 15, Section 5.11. Comment: How long is a person allowed to remain in the remedial training program, and what work restrictions are imposed on them during this time?

Requirement: Please answer questions.

DOE-RL/FDH Response: Remedial training program is determined by the individual's immediate manager/supervisor. Remedial training programs generally do not exceed 6 months; however, this is up to the immediate manager/supervisor.

39. Page A-1, 1st para. Comment: What process is in place for determining what type of training applies to a specific position?

Requirement: Clarify how this determination is made.

DOE-RL/FDH Response: This is an ongoing process. Any changes in operations are evaluated and a determination is made if additional, reduced, or no change is required. Personnel are then trained accordingly based on this ongoing evaluation.

40. Page A-2, Training Matrix. Comment: This table is confusing.

Requirement: Part of a project managers meeting will be devoted to discussion on how to use the table.

DOE-RL/FDH Response: No response required. Answers to questions will be developed during future discussions with Ecology.

41. Page A-12, Category G. Comment: The 40 hour and 16 hour Hazardous Waste Operations Training is considered "Non-RCRA," why?

Requirement: Clarify how this is categorized as "Non-RCRA."

DOE-RL/FDH Response: This training is required by OSHA and 29 CFR 1910.120 and not the dangerous waste regulations. This is Health and Safety training and not waste management training.

Attachment 6

CENTRAL WASTE COMPLEX
Project Managers Meeting
2440 Stevens Center, Room 2100
Richland, Washington

May 1, 1997
2:30 p.m. to 4:00 p.m.

INTERIM SAFETY BASIS

Waste Stream or Project: TRUSAF Transition

Destination: CWC

CIN: RH2-220-A20284

Checklist Questions	Y/N	Comments
Verification Requirements		7/23/91
Is the waste acceptance date after 12/31/94?		
or		
Has the waste stream previously passed verification		
or		
Has the waste stream been exempted from verification due to previous confirmation activities?	Y	
If additional verification is required, is the container a 55 gal. DM weighing < 454 kg (1000 lbs.)?	N/A	55 gal. 60.01 (kg)
General Requirements		
Is the thermal power less than 3.5 W/m³ (.1 W/ft³)?	Y	Thermal Power = 3.811 e-3
Does the package NOT exceed Class C limits?	N/A	
Are all articles identified been correctly designated for (i.e. lead gloves, light bulbs, manometers, paints, oils, etc.)?	N	SEE ATTACHED RESOLUTION.
If HEPA filters are present, is sufficient information provided to accurately designate the waste?	N/A	
Free Liquids are < 1% and designatable.	N/A	
Containerized Liquids are < 3% and designatable (no unpunctured aerosol cans are identified).	N/A	
Disposal Requirements		
Is the waste Low-level (not TRU)?	N/A	TRU
The waste is Cat 1? or		
The waste is Cat 3 and requires placement in a HIC or meets the stabilization requirements?	N/A	
If the waste is Cat 3, the ISB Limits have NOT been exceeded?	N/A	
Mobile Radionuclides do not exceed the trigger values?	N/A	
The container has been confirmed to meet Void Space Requirements?	N/A	

CIN:

Checklist Questions	Y/N	Comments
CWC Requirements		
Are less than 15 grams of the fissile radionuclides present (^{238}Pu, ^{239}Pu, ^{241}Pu, ^{243}Pu, ^{235}U)?	Y	If no, see Ops Review for resolution
Does the packaging meet the requirements for long term storage in the CWC?	Y	
Is the DE-Ci value less than 35?	Y	DE-Ci = .02835
Is the PE-Ci value less than 35?	Y	PE-Ci= .0270
T-Plant Requirements		
Is less than 1 gram of the fissile radionuclides present?		If no, see Ops Review for Resolution
Is the surface dose rate of the container less than 10 mrem/hr.?		.5
Is the container to be stored only (not opened)?		If no, see Ops Review for restrictions of acceptance
WRAP Requirements		
Are less than 200 grams of the fissile radionuclides present?		If no, see Ops Review for Resolution
Is the DE-Ci value of (at most) zero?		DE-Ci=
Is the container to undergo NDE/NDA only (not opened)?		If no, see Ops Review for restrictions of acceptance
Operational Review		
Have the issues associated with receipt and management of this container been resolved?	Y	

Reviewer	Date	Comments
SWITS Review		
Susan Sato	2/18/97	
Technical Review		
Janis M Votava	2/24/97	
Operational Review		
M.D. Gilbert	2/28/97	

DON'T SAY IT --- *Write It!*

DATE: February 24, 1997

TO: RHZ-220-A20284

FROM: Jeanie M. Votava T3-05

Telephone: (509) 372-1145

SUBJECT: Resolution of Issues Identified During RTR Activities

Visual inspection via Real Time Radiography (RTR) indicated the presence of a battery in an instrument. A conservative approach to managing this container in the Central Waste Complex will be employed.

The battery has been designated as an Alkaline Type Battery; and as such carries the waste codes of D009, D011, WSC2, and WT02 (See attached designation).

Additionally, a second page of the current SWSDR has been completed to reflect the actual contents identified during RTR inspection.

This waste should be managed as TRU-Mixed according to the requirements of WSRd 203-00 (see attached); and should be stored at CWC in Transuranic Caustic Storage. The container should be marked and labeled to meet the transportation and storage requirements for wastes under WSRd 203-00.

50. Primary PIN (CIN) RHZ-220-A20284	51. Secondary PIN N/A	
52. WA State Waste Designation ☒ DW ☐ EHW ☐ N/A	53. Manifest No. N/A	54. Manifest Date N/A
55. Applicable Waste Codes D009, D011, WSC2, WT02 ADDENDUM		56. Is waste LDR? ☒ Y ☐ N Is waste Debris? ☒ Y ☐ N
57. Waste Generating Description Attachment to original record. Includes conservative designation of container on RTR results during the 224-T Transition.	58. pH ~~N/A~~ >12.5 (RAD) 3/24/97	59. Flashpoint N/A
		60. Estimated Liquid Volume (L) <0.01

61. Article Description	62. Estimated Volume %	63. Estimated Wt. (kg)
Alkaline battery (in instrument)	N/A	N/A
Due to the small quantity of batteries, no change is required to the Estimated Volume or Estimated Weight listed on the original paperwork. ADDENDUM	N/A	N/A
64. TOTALS	100%	N/A

65. Hazardous Constituent	66. Weight %	67. Physical Properties
Calcium Hydroxide	15	Battery Constituent - solid
Potassium Hydroxide	46	Battery Constituent - solid
Sodium Hydroxide	7	Battery Constituent - solid
Silver (1+) Oxide	35	Battery Constituent - solid
Mercuric Oxide	50	Battery Constituent - solid
Mercury	5	Battery Constituent - solid

68. Comments This container has been conservatively designated for management within the CWC based on RTR results.

WASTE SPECIFICATION RECORD No. 2 0 3 - 0 0

A. WASTE MATRIX DESCRIPTION

Transuranic (TRU) Code: 111, 114, 119, 123, 125, and 126.

B. RADIOLOGICAL DESCRIPTION

- ■ TRU
- ☐ Low-Level Waste (LLW)
  - ☐ Category 1
  - ☐ Category 3
  - ☐ > Category 3
  - ☐ < 10 nCi/g alpha activity
- ■ Contact Handled
- ☐ Remote Handled

C. HAZARDOUS CONSTITUENTS

- ☐ Non-Hazardous TRU Waste
- ■ RCRA/EPA Regulated Hazardous Organics
  - ☐ w/o halogenated organics
- ■ RCRA/EPA Regulated Hazardous Metals
  - ☐ w/o mercury
- ☐ Ignitables
  - ☐ liquids
  - ☐ oxidizers
- ■ Corrosives
- ☐ Reactives
  - ☐ cyanides
  - ☐ sulfides
  - ☐ water reactive
- ☐ PCB's- ☐ PCB1 ☐ PCB2 ☐ State Only
- ☐ State-Only Regulated Waste
- ☐ RCRA/EPA regulated based on "Derived-From or Mixture Rule"
- ■ Subject to Land Disposal Restrictions

D. ALLOWABLE WASTE CODES

State Waste Codes WT01, WT02, WP01, WP02, WC02, WSC2
EPA Waste Codes F001-F005, P015, D004-D040

E. pH RANGES

- ☐ pH ≤ 2
- ■ pH ≥ 12.5*
- ☐ pH > 2 & <12.5 or N/A

F. FLASHPOINT RANGES

- ☐ < 38 °C
- ☐ 38 - 60 °C
- ■ > 60 °C or N/A

G. RECOMMENDED PACKAGING

- UN1A2 208 liter (55 gallon) galvanized drum,
- WIPP SWB*

Waste must be segregated by TRU code within individual inner containers. Each inner container must be clearly marked with its respective TRU code. Multiple TRU codes may be packaged in a single outer container.

H. SPECIAL INSTRUCTIONS

★ Applies to solids or semi-solids as specified in WAC 173-303-090 (6)(a)(iii).

* A WIPP SWB may only be used to overpack four 55-gallon galvanized drums. Use of the SWB to package large items not amenable to 55 gallon drums is subject to approval from Acceptance Services.

- 35 PE-Ci (based on 12% nominal Pu-240 isotopic dist.) maximum per individual container. 40 CWC DE-Ci maximum per shipment.

I. STORAGE/DISPOSAL LOCATION

- ■ Transuranic Storage (TRUSAF/CWC)
- ☐ Low-Level Burial Grounds
- ☐ Central Waste Complex (CWC)
  - ☐ Acid Storage
  - ■ Caustic Storage
  - ☐ Combustible Storage
  - ☐ Low-Flashpoint Storage
  - ☐ Other RMW Storage
  - ☐ Oxidizer Storage
  - ☐ Sodium Storage
  - ☐ PCB Storage
  - ☐ Non-Mixed Storage
- ☐ Direct Offsite Shipment
- ☐ Mixed Waste Trench

J. VIABLE TREATMENT AND/OR DISPOSAL METHOD(S)

☐ Organic Destruction	☐ Organic Removal	☐ Organic Treatment-Aqueous	☐ Metal Removal	☐ Amalgamation
☐ Stabilization	☐ Deactivation	☐ Disposal	☐ Decontamination	☐ Metal Recovery
☐ Mercury Separation	☐ Neutralization	■ Waste Isolation Pilot Plant		

SOLID WASTE ENGINEERING ANALYSIS

HAZARDOUS ANALYSIS SMART (HAS) SYSTEM
HAS SYSTEM REPORT FOR REQUEST # TRURELOCAT

CURRENT DATE -- 9/06/96
MATERIAL -- CONSERVATIVE DESIGNATION OF ALKALINE BATTERIES

ANALYSIS DATE - 9/06/96 CONTAINER - 55 GALLON GALVANIZED DRUM
WASTE PHYSICAL STATE - S TC PHYSICAL STATE - S

pH =13.00 DESIGNATOR - BLO
FLASHPOINT - °F WASTE WEIGHT -
DENSITY - g/CC WASTE STATUS - O

CONSTITUENT LIST FOR ITEM #RHZ-103-A14823

CAS# MSDS#/RGN	CHEMICAL NAME	WEIGHT PERCENT	TOX	EC X	PERS/ LDR	SOURCES Use-Code-cls	LDR (WW/OT)	PRODUCT	40 CFR D1	D2	D3	TOXICITY CHARACTERISTIC Code-DW conc.-	-LDR conc.	GENERAL INFORMATION
1305-62-0	CALCIUM HYDROXIDE	15.0000	N	0.0000		- -		CODE -		X		- - -		RQ-45.4 K
FORM- 10						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		15.0000						LDR- - POISON -				NOTES:		RD-9/20/94
1310-58-3	POTASSIUM HYDROXIDE	46.0000	C	.0460		- -		CODE -		X		- - -		RQ-454 K
FORM- 10						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		46.0000						LDR- - POISON -				NOTES:		RD-10/13/94
1310-73-2	SODIUM HYDROXIDE	7.0000	N	0.0000		- -		CODE -		X		- - -		RQ-454 K
FORM- 10						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		7.0000						LDR- - POISON -				NOTES:		RD-9/19/94
1313-13-9	MANGANESE DIOXIDE	60.0000	N	0.0000		- -		CODE -				- - -		RQ- K
FORM-						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		60.0000						LDR- - POISON -				NOTES:		RD-4/10/95
1314-13-2	ZINC OXIDE	40.0000	N	0.0000		- -		CODE -				- - -		RQ-NONE K
FORM-						- -		CLASS -				- - -		FP-NA °F
TOT. X OF CHEM. IN WASTE MATRIX		40.0000						LDR- - POISON -				NOTES:		RD-4/12/95
20667-12-3	SILVER (1+) OXIDE	35.0000	D	.0035		- -		CODE -				D011-100 ppm -	-100 ppm	RQ-.454 K
FORM-						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		35.0000						LDR- - POISON -				NOTES:		RD-1/19/94
21908-53-2	MERCURIC OXIDE	50.0000	B	.5000		- -		CODE -				D009-4 ppm -	-4 ppm	RQ-1 K
FORM-						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		50.0000						LDR- - POISON -				NOTES:		RD-12/20/91
7439-96-5	MANGANESE	25.0000	N	0.0000		- -		CODE -				- - -		RQ-NONE K
FORM-						- -		CLASS -				- - -		FP- °F
TOT. X OF CHEM. IN WASTE MATRIX		25.0000						LDR- - POISON -				NOTES:		RD-10/20/94

quantity too small

CURRENT DATE -- 9/06/96
MATERIAL -- CONSERVATIVE DESIGNATION OF ALKALINE BATTERIES

ANALYSIS DATE - 9/06/96 CONTAINER - 55 GALLON GALVANIZED DRUM
WASTE PHYSICAL STATE - S TC PHYSICAL STATE - S

pH - 13.00 DESIGNATOR - BLO
FLASHPOINT - °F WASTE WEIGHT - .
DENSITY - g/CC WASTE STATUS - O

BLO 1-6-96

CONSTITUENT LIST FOR ITEM #RHZ-103-A14823

CAS# MSDS#/RGH	CHEMICAL NAME	WEIGHT PERCENT	TOX	EC %	PERS/ LDR	SOURCES Use-Code-cls	SOURCES LDR (WW/OT)	PRODUCT	40 CFR D1	40 CFR D2	40 CFR D3	TOXICITY CHARACTERISTIC Code-DW conc.-	TOXICITY CHARACTERISTIC -LDR conc.	GENERAL INFORMATION
7439-97-6	MERCURY	5.0000	N	0.0000		- -		CODE - U151				D009-4 ppm	-4 ppm	RQ-.454 K
FORM-						- -		CLASS - DW N/A not sole active ingredient				-	-	FP- F
								LDR-LDR-1						RD-1/09/95
TOT. % OF CHEM. IN WASTE MATRIX		5.0000						POISON -				NOTES:		
7440-44-0	CARBON	8.0000	N	0.0000		- -		CODE -	X			-	-	RQ-45.4 K
FORM-						- -		CLASS - N/A in current form				-	-	FP- °F
								LDR -						RD-11/30/94
TOT. % OF CHEM. IN WASTE MATRIX		8.0000						POISON -				NOTES:		
7440-66-6	ZINC	37.0000	N	0.0000		- -		CODE -	X		X	N/A in current form	-	RQ-454 K
FORM-						- -		CLASS -				-	-	FP- °F
								LDR -						RD-9/01/94
TOT. % OF CHEM. IN WASTE MATRIX		37.0000						POISON -				NOTES:		
7727-43-7	BARIUM SULFATE	5.0000	N	0.0000		- -		CODE -				-	-	RQ-454 K
FORM-						- -		CLASS -				-	-	FP- °F
								LDR -						RD-9/29/94
TOT. % OF CHEM. IN WASTE MATRIX		5.0000						POISON -				NOTES:		

CONSTITUENT SUM% 333.0000
WAC-173-303-101 Total EC% .54950
EC% ≥ 1% WT01-EHW ___ 0.001% ≤ EC% < 1% WT02-DW X
No Data ___ or EC% <0.001% ___ Non-Reg. ___

HH > 1.0%, WP01-EHW ___ 0.01% ≤ HH ≤ 1.0%, WP02-DW ___
PAH > 1.0%, WP03-EHW ___ Non-regulated X
WAC-173-303-102 (LDR-Land Ban HH > 1000 ppm If Fed. Reg.)
40 CFR 268.32 (LDR-Land Ban CL ≥ 1000 ppm If Fed. Reg.)

» » Exclude all State Waste Codes except W001 and WSC2 if « «
» » Federal Waste Codes Apply « «

Flashpoint (FP) < 140°F IGNITABLE (I) ___
OXIDIZER (O) ___
If RCRA D001, see Note*
WAC-173-303-090, 7 (Always LDR) D001-DW

pH ≤ 2 or pH ≥ 12.5 D002-DW
WAC-173-303-090, 6 (Liquids Are LDR) WSC2 X

WAC-173-303-090, 7 (Always LDR) D003-DW ___

TC Codes D009 D011
DW X
LDRs D009, D011
WAC 173-303-090, 8

quantity too small

WASTE SHIPPING SUMMARY
DOT Reg. Y Is Waste RQ? N
TSCA Reg. N RCRA Reg. Y State Reg. Y

DESIGNATION INFORMATION FOR ITEM # RHZ-103-A14823 OF REQUEST #TRURELOCAT

APPLICABLE WASTE CODES D009, D011, WSC2, WT02 WASTE CLASS DW LDR CODES D009, D011
PROPER SHIPPING NAME N/A HAZARD CLASS N/A DOT ID NO N/A
LABELS N/A PACKAGING REQUIREMENTS N/A PG N/A
SHIP TO N/A CELL (IF APPLICABLE) N/A

* Reference 49 CFR 173.120, and 173.121 for DOT Proper Shipping Name and Packing Group
z Halogenated Hydrocarbons (HH) not applicable per the testing method described in WAC 173-303-110

CL California List Halogenated Organic Compounds subject to LDR if concentration of CL compound ≥ 1000 ppm and RCRA hazardous waste

Reviewed by RLA

Part I *HYPOTHETICAL ALKALINE BATTERY BASED ON WORST CASES OF WEIGHT % FROM TABLE 4*

HEHF MSDS No.	Weight % of Chemical constituents from MSDS							
	KOH	MnO_2	Zn	ZnO	AgO	Hg	HgO	C
N/A	46	60	37	40	35	5	50	8

Part II *HYPOTHETICAL ALKALINE BATTERY BASED ON WORST CASES OF WEIGHT % FROM TABLE 4*

HEHF MSDS No.	Weight % of Chemical constituents from MSDS							
	Mn	NaOH	$Ca(OH)_2$	$BaSO_4$				
N/A	25	7	15	5				

DON'T SAY IT --- *Write It!*

DATE: February 26, 1997

TO: RHZ-220-A20284 File

FROM: Chris R. Haas T4-04

Telephone: 372-0510

ADDENDUM

SUBJECT: Container Marking/Labeling

The following marking and labeling is required per WAC 173-303, 49 CFR, and CWC acceptance for transportation and storage of the container named above:

"EPA Hazardous Waste Sticker", including the following information, "Radioactive Material, fissile, n.o.s., UN2918", Packaging Date "November 15, 1989", Waste Codes "WSC2", "WT02", "D009", "D011".

"RMW-DW"

"Land Disposal Restricted"

"Corrosive"

"pH >12.5"

"Toxic"

ADDENDUM

SOLID WASTE STORAGE/DISPOSAL RECORD

8. Page 1 of 1

Storage/Disposal Site

I certify that a physical inspection of the waste packages to the extent possible and a cross check of the applicable documentation have been performed in accordance with SW-100-050 or SW-100-110.

2. Signature – Acceptance: Jerry Jay Todd — Date: 7-23-91

3. Area | 4. Facility | 5. Unit

6. **Storage Location (S01)**

Module	Tier	Position
2	2	

7. **Disposal Location (D81)**

Beginning Coordinates N W

Ending Coordinates N W

9. Waste Designation ☒ TRU ☐ LLW ☐ RMW ☐ C+ ☐ Classified

1. SWSDR No. (DO NOT WRITE IN THIS SPACE)

10. Waste Generator: WHC

11. Charge Code, SO No., or MPO No.: KC-2

12. WRM No.: N/A

13. Name of Contact (Type or Print Clearly): J L Aranda

14. Address/Phone: T5-08 3-4107 234-5

I certify that: (1) No capital property is included in this waste unless documented by a Property Disposal Request and described below. (2) To the best of my knowledge, the information entered below is complete and accurate, and the waste package is in compliance with WHC-EP-0063 and the Storage/Disposal Approval Record (SDAR). (3) Unless designated as Radioactive Mixed Waste (RMW), this waste is not a dangerous waste as defined by Chapter 173-303 WAC or other applicable state or federal regulation governing the management of hazardous waste. (4) The charge code is correct.

15. Signature: J L Aranda — Date: 7/17/91

WASTE PACKAGE INFORMATION

16. PIN: RH2-220-A 20284 — 17. POINT OF ORIGIN: 234-5 / 200 W

18. CONTAINER TYPE: DOT 17C 55gal. — 19. L x W x H OR D x L: N/A

20. CONTAINER VOLUME (m^3): .21 — 21. EMPTY TARE WEIGHT OF CONTAINER (kg): 31 kgs (62 kgs)

22. DATE PACKAGED: 11/15/89 — 23. GROSS WEIGHT (kg): 133 lbs 60 kgs

24. THERMAL POWER ☒ <0.1 W/ft³ — 25. ORGANIC MATL. VOL %: 90 — 26. ORGANIC MATL. WT. (kg): 26

27. Dose Rate (mrem/hr): 2.5 at contact — NEUTRON (>20 mrem/hr): N/A

28. Physical Description of Waste and Comments

assorted Suspect trn paper, plastic 2 Layers, cloth (anti rags) Rubber (surgeons gloves) metal (tools) & dia. earth

W-46445

REFERENCES

29. DOE/NRC 741 NO.: N/A

30. RSR NO. (HANFORD ONSITE WASTE GENERATORS ONLY): 03322

31. PROPERTY DISPOSAL REQUEST NO.: N/A

32. SDAR NO.: 14-1B-2C-0

33. WASTE CATEGORY (CHECK ONE)

☐ BW ☐ CE ☐ DD ☒ DS ☐ SS ☐ NC

34. WASTE CODE (CHECK ONE)

☐ FW ☐ HM ☐ CL ☐ WD ☐ SL ☐ GL ☐ CM ☐ TW ☒ DM ☐ SO ☐ PB ☐ NC ☐ LM ☐ PA

WASTE CONTENTS DESCRIPTION

35. WASTE DESCRIPTION	36. VOLUME %	37. WEIGHT (kg)
paper	20	8
plastic	30	7.5
cloth	5	1.5
rubber (surgeon gloves)	35	9
metal	5	2
dia. earth	5	1
TOTALS	100	29

39. LAND DISPOSAL RESTRICTED ☐ SOURCE OF RESTRICTION F-LISTED ☐ RCRA ☐ WASHINGTON STATE EHW ☐

38. **FISSION/ACTIVATION RADIONUCLIDES** (Do not include Uranium, Thorium, or TRU elements)

RADIONUCLIDE	Ci	RADIONUCLIDE	Ci
	N/A		
TOTAL			

40. **TRU/FISSILE/SOURCE MATERIAL** (Uranium, Thorium, and TRU elements)

40a. ELEMENT	40b. ISOTOPIC DISTRIBUTION (Weight %)	40c. WEIGHT (g)	TRU WASTE ONLY 40d. PU 239 – FGE	40e. PE – Ci	40f. ALPHA Ci
Pu	238(.029) 239(93.75) 240(5.95) 241(.27)				
	242(.022)	<1	<1	.0834	520
Am	241(.10)	<1	<1	.00273	.00273
	DEC = 2.835E-2				
	TOTALS	<1	<1	.0861	.523

White - Solid Waste Engineering (R2-82) Yellow - Solid Waste Operations Pink - Return to Shipper Goldenrod - Retained by Shipper

54-6000-226 (09/90)

CONTENTS INVENTORY SHEET

(1) Page 1 of 1

(2) Waste Generator/Location LLNL 234-5 Room 235-C

Container No. 2

(3) RH2-220-A2-0284

Container Type

(4) 55 gal drum

Initials	Initials	Article Description	Content Code	Mass of Organics (Kgs)	Volume of Organics ☐ Ft3 ☒ M3	Hazardous Material Name	Hazardous Material Qty. Kgs.	Radioactive Content TRU Isotopes	Radioactive Content Grams
(5)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
JL	GA	paper						Pu 238 .029	GA
		plastic (2 layers)	125			NONE	0	Pu 239 93.45	2.1
		cloth (dry rags)		26	.18			Pu 240 5.72	
		Rubber (Surgeons gloves)						Pu 241 .52	
		metal (tools)						Pu 242 .019	
		Dia. Earth						Am 241 .10	
		Page Total 1	125	(14) 26 Kgs	(16) .18		(18) 0		(20) 2.1g
		Total (all pages) 1		(15) 26 Kgs	(17) .18		(19) 0 Kgs		(21) 2.1g

62 kg

(22) Joie L Arnold 6/13/91
Plant Operations Authority, Signature/Date

(23) Kay Campbell 6-13-91
Independent Reviewer, Signature/Date

(24) Other Radioactive Content NONE

(25) GROSS wt. 60 Kgs 133 LBS

Distribution: White – Solid Waste Engineering Canary – Solid Waste Operations Pink – Retain - Shipper

BC-6400-131 (07/89)

WIPP CERTIFICATION CHECKLIST

Container number RH2-221-A30254 Date Container Sealed 11-15-89

YES	NO	WASTE ACCEPTANCE CRITERIA
☑	☐	DOT Type A Container.
☑	☐	Heavy or bulky items are blocked to prevent shifting.
☑	☐	Container is free of defects.
☑	☐	Waste contains less than 1% by weight powders.
☑	☐	Waste does not contain any free liquids.
☑	☐	Waste does not contain any explosives or compressed gases.
☑	☐	Waste does not contain any organic peroxides, oxidizers, flammable solids or metal fines.
☑	☐	Waste does not contain any sludges with pH ≤ 4.0.
☐	☐	Waste contents will not react with each other or with container.
☑	☐	Surface contamination is ≤ 50 pCi (100 dpm) / 100 sq cm alpha and ≤ 450 pCi (1000 dpm) / 100 sq cm beta-gamma.
☑	☐	Proper labeling has been applied.
☑	☐	Hazardous and corrosive co-contaminants are identified on Contents Inventory Sheet.
☑	☐	Gross weight is less than qualified DOT Type A limit (658 kg).
☑	☐	Pu-239 Fissile Gram Equivalent content is less than WIPP specified limit (200 g).
☑	☐	Pu-239 equivalent TRU activity (PE-Ci) is less than the WIPP specified limit of 1000 PE-Ci.
☑	☐	Surface dose rate is ≤ 200 mrem/hr (beta, gamma and neutron) at any point.
☑	☐	Neutron dose rate contribution is ≤ 20 mrem/hr.

The waste package described above is unclassified and meets all WIPP Waste Acceptance Criteria

☐ With no exceptions

☑ With the following exceptions:

Uncertifiable Room Waste

Jose L Aranda 6/13/91
Plant Operations Authority signature and date

KM Campbell 6-13-91
Independent Reviewer signature and date

DEC. - 2.835E-2

White - WASU, 2750E, 200-E
Yellow - TFS, 272WA 200-W
Pink - Retain, Shipper

BC-6400-132 (11-87)

6C
2.2
124
124

TRAVELER CHECKLIST

( ) STORAGE AREA #1
(✓) STORAGE AREA #2 DRUM ID. RH2-220-A 20284
ASSAY

1.	NORMAL RUN	✓OK*
2.	ABSORBER INDEX <15	___OK ✓HOLD
3.	DETECTORS AGREE	✓OK*
4.	ASSAY + +/- >100 nCi/g	✓TRU
5.	ASSAY + +/- >100 nCi/g (ROOM WASTE ONLY)	✓RETURN TO GENERATOR QA 1-13-94
6.	ASSAY + +/- ≤100 nCi/g	___LOW-LEVEL

7. IF ACTIVE ASSAY IS >141 GRAMS, BUT <287 GRAMS, NOTIFY SUPERVISION AND SEGREGATE DRUM IN DESIGNATED 3rd FLOOR STORAGE AREA.
_____TIME SUPERVISION NOTIFIED

8. IF ACTIVE ASSAY IS >287 GRAMS, STOP ALL OPERATIONS AND NOTIFY SUPERVISION. DO NOT REMOVE DRUM FROM ASSAYER.
_____TIME SUPERVISION NOTIFIED

9. PRELIMINARY ASSIGNMENT:

___ #3 TRU (CERTIFIABLE) ___#4 PNL CERTIFIABLE ✓ QA 1-13-94
___ #5 LOW-LEVEL ✓ #6 HOLD ✓ #7 RETURN TO GENERATOR

OPERATOR'S INITIALS [illegible] / QA DATE 7-29-91

APPROVAL, ANALYTICAL LAB REP mel DATE 6-5-92

*IF "OK" CANNOT BE CHECKED, NOTIFY SUPERVISION OR LABORATORY REP.

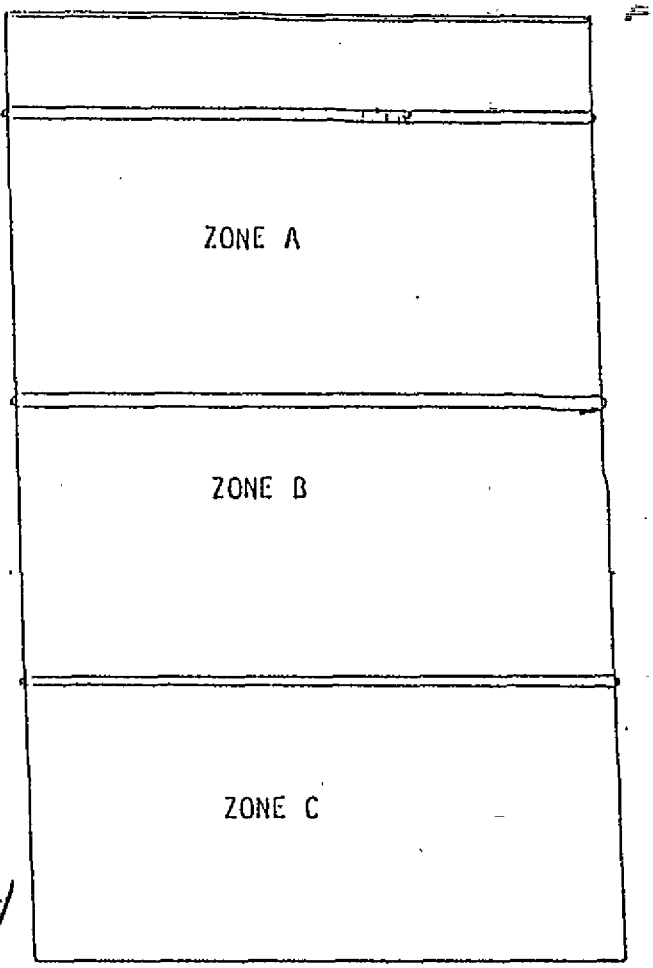
RTR LOG 2873

X-RAY

1. TAPE NUMBER 422 FOOTAGE 52:45 — 1 HR 04:27
2. DETERMINED TO ___ PASS ___ FAIL X BE ON HOLD
3. REMARKS: battery in Instrument

SIGNATURE [signature] DATE 3-18-94

DESTINATION _____ TRUSAF MANAGER _____
SIGNATURE/DATE



18"

DRUM NUMBER RN2-220-A20284

☐ REJECT in ZONE ____

☐ FREE LIQUID

☐ POWDER ?

☐ SPRAY CAN

☐ HEPA FILTER

☐ OTHER ____

____

☒ ON HOLD in ZONE 18"

☐ LEAD LINED GLOVES

☒ BATTERY at 18" in ~~hole~~ instrument

☐ CANNOT PENETRATE

- ☐ LEAD LINED GLOVES
- ☐ METAL MASS
- ☐ KITTY LITTER MASS
- ☐ MOTOR
- ☐ OTHER ____

PROGRAM NEUT OF 09-22-87--VERSION FOR WESTINGHOUSE HANFORD COMPANY
MATRIX PARAMETER REPORT
MATRIX CORRECTION AND MASS REPORT

ABSORBER INDEX	16.077		
MODERATOR INDEX	.20022		
ABSORBER CORRECTION FACTOR	2.9574		
MODERATOR CORRECTION FACTOR	1.0000		
MATRIX CORRECTION FACTOR	2.9574		
250 USEC COINC CORR FACTOR	1.3567		
70 USEC COINC CORR FACTOR	1.5512		
SHIELDED RATE CORR FACTOR	1.2503		
SYSTEM RATE CORR FACTOR	1.0000		
ACTIVE ISOTOPIC COR FACTOR	1.0027		
PASSIVE ISOTOPIC COR FACTOR	.96000		
ISOTOPIC NCI/G FACTOR	.62313E-01		
ACTIVE MASS (GRAMS)	.31790	+/-	.66080E-01
PASSIVE MASS (GRAMS)	.36956	+/-	.17285

SUMMARY REPORT

RUN NUMBER 12	DISK ID 072991	CONTENT CODE <1	
PRIMARY ID	A20284	SECONDARY ID	RHZ-220
TIME AND DATE OF ACTIVE	8:19:51	7/29/90	
TIME AND DATE OF PASSIVE	8:21: 2	7/29/90	
PASSIVE COUNT TIME(S)	200.24	NO OF ACTIVE PULSES	2000

SYSTEM TOTALS RATE	71.974	+/-	.68040
SHIELDED TOTALS	14.508	+/-	.30192
70 USEC COINC RATE	.56634E-02	+/-	.11173E-01
250 USEC COINC RATE	.22167	+/-	.10368
SHIELDED ACTIVE SIGNAL	320.00		
SHIELDED ACTIVE BACKGRD	346.00		
FLUX MONITOR	9051.4		
BARREL FLUX MONITOR	563.00		

PERCENT PU-239	93.75	CONTAINER WEIGHT(KG)	62.0
PASSIVE MASS(G)	.36956	+/-	.17285
ACTIVE MASS(G)	.31790	+/-	.66080E-01
NCI/G	792.95	+/-	164.82
TOTAL ALPHA ACT (CI)	.11516		
THERMAL POWER (WATT)	.34547E-02		
THERM POW DEN (WATT/FT3	.47003E-03		

ACTIVE NEUTRON INTERROGATION REPORT
ANEUT OF 09-22-87--VERSION FOR WESTINGHOUSE HANFORD COMPANY
RUN 12 DRUM A20284 8:19:51 7/29/90

RAW DATA

SHIELDED TOTALS(70, 270)	320.
SHIELDED TOTALS(570,1570)	346.
FLUX MONITOR(70, 270)	9052.
FLUX MONITOR(570,1570)	3.
2ND FLUX MONITOR(70, 270)	563.
2ND FLUX MONITOR(570,1570)	0.

```
NEUT-DF 09-22-87--VERSION FOR WESTINGHOUSE HANFORD COMPANY
RUN    12    DRUM A20284       8:21: 2    7/29/90
ACTUAL GATE LENGTHS     .352761E-04 (SHORT GATES)     .249173E-03 (LONG GATES)
FOLLOWING DATA HAS BEEN BACKGROUND CORRECTED BY BACKGROU     4:28: 8    7/29/90
 RUN    101

COUNTING TIME IS       200.24 SECONDS

        DETECTOR      COUNT       RATE                DETECTOR      COUNT       RATE

BARE DOOR              2411.      12.04      SHLD DOOR                544.       2.72
BARE RIGHT             2380.      11.89      SHLD RGHT                615.       3.07
BARE BACK              2251.      11.24      SHLD BACK                582.       2.91
BARE LEFT              2258.      11.28      SHLD LEFT                587.       2.93
BARE TOP               1527.       7.63      SHLD TOP                 391.       1.95
BARE BOTM               680.       3.40      SHLD BOTM                186.        .93
FLUX MONITOR              3.        .01      2ND FLUX MONITOR           6.        .03
SYSTEM TOTALS RATE      71.97      SHIELDED TOTALS RATE      14.51   (FROM PARTS)
NEUTRON COINCIDENCE

SHIELDED TOTALS                    3280.+/-       57.27
SYSTEM TOTALS                     16487.+/-      128.40
1ST N LONG      GATES             16088.
1ST N SHORT     GATES              3274.
10 KHZ CLOCK PULSES               2002398.
1 KHZ CLOCK PULSES                 200240.
1ST N GATED SHORT    TOTALS           4.
1 MHZ CLOCK GATED WITH SHORT      115494.
1ST N GATED    LONG    TOTALS       388.
1MHZ CLOCK GATED WITH LONG        4008703.

LONG GATE LIVE TIME          196.23 SEC
SHORT GATE LIVE TIME         200.12 SEC
NET COINCIDENT NEUTRONS/LONG GATE    .36013E-02+/-    .12348E-02
NET COINCIDENT NEUTRONS/SHORT GATE   .64391E-03+/-    .61096E-03

SYSTEM TOTALS RATE      71.974     +/-    .68040
SHIELDED TOTALS RATE    14.508     +/-    .30192

NET COINCIDENT LONG GATE NEUTRONS/LIVE TIME    .22167     +/-    .10368
NET COINCIDENT SHORT GATE NEUTRONS/LIVE TIME   .56634E-02+/-    .11173E-01
```

Distribution:

W. D. Adair	FDH	(H6-21)*
R. R. Ames	RFSH	(T4-03)
L. D. Arnold	FDH	(B2-35)*
E. S. Aromi	RFSH	(T3-01)*
B. M. Barnes	RFSH	(T3-05)
R. C. Bowman	RFSH	(H6-24)*
R. M. Carosino	RL	(A4-52)
M. Ciminera	GSSC	(A4-35)*
C. E. Clark	RL	(A5-15)*
R. R. Durfee	RFSH	(T4-04)*
R. H. Engelmann	RFSH	(H6-26)*
E. G. Erpenbeck	FDNW	(G3-15)*
R. J. Giroir	RFSH	(T4-05)*
J. W. Golden	FDH	(N1-26)*
R. F. Guercia	RL	(S7-55)*
R. M. Irwin	RFSH	(T4-03)*
B. R. Kenworthy	RL	(S7-55)*
P. J. Macbeth	GSSC	(R3-82)*
K. M. McDonald	RFSH	(T4-04)*
A. C. McKarns	RL	(A5-15)
A. G. Miskho	FDH	(H6-23)*
L. R. Olsen	RFSH	(T4-61)
S. M. Price	FDH	(H6-23)*
F. A. Ruck III	FDH	(H6-23)*
D. G. Saueressig	RFSH	(H6-24)
H. T. Tilden II	PNL	(P7-79)
B. D. Williamson	FDH	(B3-15)*
J. A. Winterhalder	RFSH	(H6-21)*
T. A. Wooley	Ecology	(B5-18)
M. T. Yasdick	RFSH	(H6-10)*
RCRA Files	RFSH	(H6-23)

*cc:Mail

ADMINISTRATIVE RECORD: Central Waste Complex, TS-2-4 [Care of EDMC, FDH (H6-08)]

Washington State Department of Ecology Nuclear and Mixed Waste Hanford Files, P.O. Box 47600, Olympia, Washington 98504-7600

Environmental Protection Agency Region 10, Seattle, Washington 98101, Mail Stop HW-070 (Records Center)

Please send comments on distribution list to D. Saueressig, RFSH (H6-24), (509) 376-9739